CW#25Hb: Area & Circumference of Circles

Honors Geometry

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

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| **CRS** | MEA401: Compute the area and perimeter of triangles and rectangles in simple problems; MEA502: Compute the area and circumference of circles after identifying necessary information. |
| **Objective** | 3.3: Find perimeter of a triangle; 3.4: Find area of a triangle; 3.7: Find area of a circle; 3.8 Find circumference circle |

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| **Example 1:** Finding the area of the circle. Use your calculator’s value of pi. Round your answer to the nearest tenth. | | 1) Finding the area of the circle. Use your calculator’s value of pi. Round your answer to the nearest tenth. | | |
| **Example 2:** Finding the area of the circle. Use your calculator’s value of pi. Round your answer to the nearest tenth. | | 2) Finding the area of the circle. Use your calculator’s value of pi. Round your answer to the nearest tenth. | | |
| **Example 3:** If the area of a circle is 36 km2, what is the radius and diameter? | | 3) How many centimeters long is the radius and diameter of a circle whose area is 81 cm2 ? | | |
| 4) The area of the circle is…    A. 16  B. 32  C. 256  D. 1024 | | 5) Which expression below gives the area of a circle?  A. 2r  B. r  C. r2  D. d | | |
| 6) How many centimeters long is the radius and diameter of a circle whose area is 121π cm2 ?  Radius: \_\_\_\_\_  Diameter: \_\_\_\_\_ | | 7) How many centimeters long is the radius and diameter of a circle whose area is 144 π cm2 ?  Radius: \_\_\_\_\_  Diameter: \_\_\_\_\_ | | |
| 8) Find the area: | 9) | | To two decimal places, the area of  the shape is…  A. 39.27  B. 78.54  C. 157.08  D. 314.16 | |
| 10) You are filling a circular pig pen with dirt. The pen has a radius of 15 feet. The dirt costs $15.00 per square foot. How much money will it cost to fill the pig pen? | | 11) What is the diameter of a circle that has an area of 256π square units? | | |
| 12) A circle has an area of 30 square inches. If you double the radius, what will its new area be?  A. 60 sq in  B. 120 sq in  C. 450 sq in  D. 900 sq in | | 13) Find the area of the shaded ring below. | | A. 122.52  B. 201.06  C. 216.77  D. 452.39 |
| 13) The area of a circle whose radius is r is given by the expression πr2. Find the area of  each of the following circles to the nearest tenth of a square unit of measure:   1. a circle whose radius is 15 cm 2. a circle whose radius is 0.3 miles | | | | |

***Directions:*** Write your answer TWO ways: 1) With π and 2) Rounded to the nearest tenth.

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| Find the circumference of the circle. | An orange sliced in half has a diameter of  5 inches. Find the circumference. |
| 1) A quarter has a radius of 12.1 mm. Find the circumference of the quarter. | 2) Mr. Beutel is ordering circular cloth patches for the soccer team’s uniform. If the diameter is 9 cm, find the approximate circumference of the patch. |
| A circular dish of pasta has a circumference of 84.8 cm. What is the diameter of the wheel? What is the radius? | 3) A bicycle tire has a circumference of 56 inches. What is the diameter of the wheel? What is the radius? |
| 4) The distance around the outside of a circle may also be called which of the following?  A. diameter  B. area  C. radius  D. circumference | 5) Which expression below gives the perimeter of a circle?  A. r  B. 2d  C. both are correct  D. neither are correct |
| 6) The circumference of the circle is…    A. 16  B. 32  C. 256  D. 1024 | 7) If the official basketball of both men's N.B.A. and N.C.A.A. leagues has a circumference of 30 cm, what is the diameter of the basketball? What is the radius? |
| 8)a) You lay 10 inch long bricks end-to-end around the border of a circular garden. How many bricks do you need for each garden if it has a diameter of 26 feet? | b) The bricks are sold in bundles of 100. How many bundles should you buy? |